

Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

Claims 1-38 (canceled)

Claim 39 (new): A tire for a vehicle, comprising:

a carcass structure;

a belt structure coaxially associated to the carcass structure; and

a tread coaxially extending around the belt structure;

wherein the tire comprises a curvature ratio not greater than 0.1,

wherein the carcass structure comprises a central crown portion and two sidewalls,

wherein each sidewall ends in a bead for anchoring the tire to a rim of a wheel,

wherein the tread comprises an equatorial zone and two shoulder zones,

wherein the equatorial zone extends on both sides of an equatorial plane of the tire,

wherein the two shoulder zones are disposed in axially-opposite positions with respect to the equatorial zone,

wherein the tread further comprises a plurality of transversal grooves,

wherein each transversal groove comprises an equatorial groove portion in the equatorial zone and a shoulder groove portion in one of the shoulder zones,

wherein the transversal grooves are circumferentially distributed in groups alternately extending from the axially-opposite shoulder zones,

wherein the groups of transversal grooves define a plurality of substantially-continuous tread portions in the equatorial zone,

wherein each substantially-continuous tread portion ends at an equatorial groove portion of a same transversal groove of an axially-opposed group of transversal grooves,

wherein each of the transversal grooves ends at a predetermined distance from the equatorial groove portion of a longest transversal groove of the axially-opposed group of transversal grooves so that all of the transversal grooves end within the equatorial zone, and

wherein each substantially-continuous tread portion comprises a width wider than an adjacent transversal groove.

Claim 40 (new): The tire of claim 39, wherein the equatorial groove portion of at least one of the transversal grooves forms a first angle greater than or equal to 20° and less than or equal to 65° with respect to the equatorial plane of the tire.

Claim 41 (new): The tire of claim 39, wherein at least one of the transversal grooves comprises an equatorial groove portion extending on both sides of the equatorial plane of the tire.

Claim 42 (new): The tire of claim 39, wherein at least one of the transversal grooves comprises an equatorial groove portion extending in a substantially-rectilinear way within a portion of the equatorial zone on one side of the equatorial plane of the tire.

Claim 43 (new): The tire of claim 39, wherein at least one of the transversal grooves comprises an equatorial groove portion extending in a substantially-rectilinear way at least partly within one of the shoulder zones.

Claim 44 (new): The tire of claim 39, wherein in each group of transversal grooves, the transversal grooves comprise equatorial groove portions at least partly substantially parallel to one another.

Claim 45 (new): The tire of claim 39, wherein the equatorial groove portions of the groups of transversal grooves end at a distance less than or equal to 50% of a mean pitch of a tread pattern from the equatorial groove portion of the same transversal groove of the axially-opposed group of transversal grooves.

Claim 46 (new): The tire of claim 39, wherein the equatorial groove portion of each transversal groove is connected to the shoulder groove portion by a substantially-curvilinear intermediate groove portion comprising a radius of curvature greater than or equal to 30 mm and less than or equal to 60 mm.

Claim 47 (new): The tire of claim 39, wherein the shoulder groove portion of at least one transversal groove forms a second angle greater than or equal to 85° and less than or equal to 95° with respect to the equatorial plane of the tire.

Claim 48 (new): The tire of claim 39, wherein the transversal grooves comprise a substantially-constant width greater than or equal to 5 mm and less than or equal to 10 mm along a tread portion substantially corresponding to an area of the tire that contacts the ground when the vehicle travels in a straight line.

Claim 49 (new): The tire of claim 39, wherein the shoulder groove portion of the transversal grooves comprises an end groove portion comprising a width greater than or equal to 40% and less than or equal to 60% of a maximum width of the transversal grooves.

Claim 50 (new): The tire of claim 49, wherein the end groove portion substantially lies within an area of the tire that contacts the ground when the vehicle travels around a curve or experiences drift rolling.

Claim 51 (new): The tire of claim 39, wherein each of the groups of transversal grooves comprises three to seven transversal grooves.

Claim 52 (new): The tire of claim 39, wherein the transversal grooves comprise a depth greater than or equal to 5 mm and less than or equal to 9 mm.

Claim 53 (new): The tire of claim 39, wherein the transversal grooves of each of the groups of transversal grooves are longitudinally staggered with respect to the transversal grooves

of the axially-opposed group of transversal grooves by a distance equal to about 50% of a mean pitch of a tread pattern.

Claim 54 (new): The tire of claim 39, further comprising two longitudinal slots circumferentially extending on opposite sides of the equatorial plane of the tire along the shoulder zones.

Claim 55 (new): The tire of claim 39, further comprising a plurality of transversal notches in the shoulder zones interposed between adjacent transversal grooves; wherein the transversal notches comprise a depth greater than or equal to 3 mm and less than or equal to 4.5 mm, and
wherein the transversal notches comprise a width greater than or equal to 2 mm and less than or equal to 3.5 mm.

Claim 56 (new): The tire of claim 39, wherein each of the groups of transversal grooves comprises a plurality of transversal grooves comprising a length decreasing along a rolling direction of the tire.

Claim 57 (new): The tire of claim 39, wherein each substantially-continuous tread portion ends at the equatorial groove portion of the longest transversal groove of the axially-opposed group of transversal grooves.

Claim 58 (new): A set of tires, comprising:

two tires for mounting on front wheels of a vehicle; and

two tires for mounting on rear wheels of the vehicle;

wherein the tires for mounting on the front wheels each comprise a first tread,

wherein the tires for mounting on the rear wheels each comprise a second tread,

wherein each tire comprises a curvature ratio not greater than 0.1,

wherein the first and second treads each comprise an equatorial zone and two shoulder zones,

wherein, in the first and second treads, the equatorial zone extends on both sides of an equatorial plane of a respective tire,

wherein, in the first and second treads, the two shoulder zones are disposed in axially-opposite positions relative to the equatorial zone of the respective tire,

wherein the first and second treads each further comprise a plurality of transversal grooves,

wherein, in the first and second treads, each transversal groove comprises an equatorial groove portion in an equatorial zone of the respective tire and a shoulder groove portion in one of the shoulder zones of the respective tire,

wherein, in the first treads, the transversal grooves are circumferentially distributed in groups alternately extending from axially-opposite shoulder zones of the respective front tire, each group comprising three to five transversal grooves,

wherein, in the second treads, the transversal grooves are circumferentially distributed in groups alternately extending from axially-opposite shoulder zones of the respective rear tire, each group comprising five to seven transversal grooves,

wherein, in the first and second treads, the groups of transversal grooves define a plurality of substantially-continuous tread portions in the equatorial zone of the respective tire,

wherein, in the first and second treads, each substantially-continuous tread portion ends at an equatorial groove portion of a same transversal groove of an axially-opposed group of transversal grooves of the respective tire,

wherein, in the first and second treads, each of the transversal grooves ends at a predetermined distance from the equatorial groove portion of a longest transversal groove of the axially-opposed group of transversal grooves so that all of the transversal grooves end within the equatorial zone of the respective tire.

Claim 59 (new): The set of tires of claim 58, wherein:

the equatorial groove portion of one or more of the transversal grooves of at least one of the first treads forms a third angle substantially equal to 45° with respect to the equatorial plane of the respective front tire, and

the equatorial groove portion of one or more of the transversal grooves of at least one of the second treads forms a fourth angle substantially equal to 30° with respect to the equatorial plane of the respective rear tire.

Claim 60 (new): The set of tires of claim 58, wherein the front tires comprise a chord shorter than a chord of the rear tires.

Claim 61 (new): The set of tires of claim 58, wherein the first treads are provided with groups comprising three transversal grooves, and
wherein the second treads are provided with groups comprising five transversal grooves.

Claim 62 (new): The set of tires of claim 58, wherein the shoulder groove portion of the transversal grooves of at least one of the tires comprises an end groove portion comprising a width greater than or equal to 40% and less than or equal to 60% of a maximum width of the transversal grooves of the at least one of the tires.